Commonwealth of Kentucky
Natural Resources and Environmental Protection Cabinet
Department for Environmental Protection
Division for Air Quality
803 Schenkel Lane
Frankfort, Kentucky 40601
(502) 573-3382

AIR QUALITY PERMIT

Permittee Name: Kentucky Utilities Company
Mailing Address: One Quality Street, Lexington, KY 40507

is authorized to operate an electric power generating plant at Versailles, Kentucky

Source Name: Tyrone Station
Mailing Address: One Quality Street, Lexington, KY 40507
Source Location: US 62, Versailles, Kentucky 40383

Permit Type: Federally-Enforceable
Review Type: Title V

Permit Number: V-97-002
Log Number: E902
Application Complete Date: February 12, 1997
KYEIS I.D. #: 102-4140-0001
AFS Plant I.D. #: 21-239-00001
SIC Code: 4911

Region: Bluegrass
County: Woodford

Issuance Date:
Expiration Date:

John E. Hornback, Director
Division for Air Quality

DEP7001 (1-95)

TABLE OF CONTENTS

SECTION		DATE OF ISSUANCE	PAGE
SECTION A	PERMIT AUTHORIZATION		1
SECTION B	EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS		2
SECTION C	INSIGNIFICANT ACTIVITIES		22
SECTION D	SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS		23
SECTION E	CONTROL EQUIPMENT OPERATING CONDITIONS		23
SECTION F	MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS		24
SECTION G	GENERAL CONDITIONS		26
SECTION H	ALTERNATE OPERATING SCENARIOS	30	
SECTION I	COMPLIANCE SCHEDULE		30

SECTION A - PERMIT AUTHORIZATION

Pursuant to a duly submitted application which was determined to be administratively and technically complete on February 12, 1997, the Kentucky Division for Air Quality hereby authorizes the operation of the processing and air pollution control equipment described herein in accordance with the terms and conditions of this permit. This draft permit has been issued under the provisions of Kentucky Revised Statutes Chapter 224 and regulations promulgated pursuant thereto.

The permittee shall not construct, reconstruct, or modify any emission units without having first submitted a complete application to the permitting authority and received a permit for the planned activity, except as provided in this permit or in Regulation 401 KAR 50:035, Permits.

Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by this Division or any other federal, state, or local agency.

This permit contains provisions which require that specific test methods, monitoring, or record keeping be used as a demonstration of compliance with permit limits. However, these provisions do not shield the source from violations of the applicable requirements being established and documented through other credible evidence, nor does it relieve the source from its obligation to comply with the underlying emission limits or other applicable requirements being monitored.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 01 Indirect Heat Exchanger

Description:
Boiler # 1 for Unit # 1
No.2 fuel-oil horizontally-opposed fired unit.
Maximum continuous rating: 463.7 MMBTU/hour
Construction commenced: 1947

Applicable Regulations:

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable for an emissions unit more than 250 MMBTU/hour and commenced before August 17, 1971. Regulation No. 7, Prevention and control of emissions of particulate matter from combustion of fuel in indirect-heat-exchangers.

1. **Operating Limitations:**
None

2. **Emission Limitations:**

a) Pursuant to Regulation 401 KAR 61:015, Section 4(4), and Regulation No. 7, particulate emissions shall not exceed 0.22 lb/MMBTU based upon a three-hour average. Compliance with the allowable particulate standard may be demonstrated by calculating particulate emissions using fuel oil usage rates, fuel analysis, and emission factor information:

Emissions (lb/MMBTU) = (USEPA approved or AP-42 emission factor : 2 lbs PM / 10^3 gallons) / (Heating value from fuel analysis in MMBTU/10^3 gallons)

b) Pursuant to Regulation 401 KAR 61:015, Section 4(4), and Regulation No. 7, emissions shall not exceed forty percent opacity based on a six-minute-average except that a maximum of sixty (60) percent opacity is allowed for a period or aggregate of periods not more than six minutes in any sixty minutes during building a new fire, cleaning the fire-box, or blowing soot.

c) Pursuant to Regulation 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 1.2 lbs/MMBTU based on a twenty-four hour average. Compliance with the sulfur dioxide allowable standard may be demonstrated by calculating sulfur dioxide emissions using fuel usage rates, fuel analysis, and emission factor information:

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions (lb/MMBTU) = (USEPA approved or AP-42 emission factor: 142S lbs SO_2 / 10^3 gallons) / (Heating value from fuel analysis in MMBTU/10^3 gallons).

where S is the percent by weight of sulfur in the fuel oil.

3. Testing Requirements:

a) The permitee shall conduct one stack test for particulate matter emissions within the term of the permit.

b) When the unit is in operation, the permittee shall read, weather permitting, the opacity of emissions using U.S. EPA Reference Method 9 once per daylight shift.

4. Specific Monitoring Requirements:

a) In accordance with Regulation 401 KAR 61:015, Section 6 (2), the sulfur content of liquid fuels, as burned, shall be determined based on certification from the fuel supplier. This certification shall include the name of the oil supplier and a statement that the oil complies with the specifications under the definition for distillate oil in Regulation 401 KAR 60:043.

b) In accordance with Regulation 401 KAR 61:015, Section 6 (3), the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

5. Specific Record Keeping Requirements:

a) Pursuant to Regulation 401 KAR 61:015, Section 6, the owner or operator of the indirect heat exchanger shall maintain a file of all measurements and data required, except that the records shall be maintained for five years.

b) The permittee shall maintain the results of all compliance tests.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

None

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

8. State-Origin Requirements:

a) Operating Limitations:

None

b) Emission Limitations:

None

9. Alternate Operating Scenarios:

None

10. Compliance Schedule

None

11. Compliance Certification Requirements

See Section F.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 02 Indirect Heat Exchanger

Description:
Boiler #2 for Unit # 1
No.2 fuel-oil horizontally-opposed fired.
Maximum continuous rating: 463.7 MMBTU/hour
Construction commenced: 1947

Applicable Regulations:

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable for an emissions unit more than 250 MMBTU/hour and commenced before August 17, 1971. Regulation No. 7, Prevention and control of emissions of particulate matter from combustion of fuel in indirect-heat-exchangers.

1. **Operating Limitations:**
None

2. **Emission Limitations:**

a) Pursuant to Regulation 401 KAR 61:015, Section 4(4), and Regulation No. 7, particulate emissions shall not exceed 0.22 lb/MMBTU based upon a three-hour average. Compliance with the allowable particulate standard may be demonstrated by calculating particulate emissions using fuel oil usage rates, fuel analysis, and emission factor information:

Emissions (lb/MMBTU) = (USEPA approved or AP-42 emission factor:2 lbs PM / 10^3 gallons) / (Heating value from fuel analysis in MMBTU/10^3 gallons)

b) Pursuant to Regulation 401 KAR 61:015, Section 4(4), and Regulation No. 7, emissions shall not exceed forty percent opacity based on a six-minute-average except that a maximum of sixty (60) percent opacity is allowed for a period or aggregate of periods not more than six minutes in any sixty minutes during building a new fire, cleaning the fire-box, or blowing soot.

c) Pursuant to Regulation 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 1.2 lbs/MMBTU based on a twenty-four hour average. Compliance with the sulfur dioxide allowable standard may be demonstrated by calculating sulfur dioxide emissions using fuel usage rates, fuel analysis, and emission factor information:

Emissions (lb/MMBTU) = (USEPA approved or AP-42 emission factor: 142S lb SO_2 / 10^3 gallons) / (Heating value from fuel analysis in MMBTU/10^3 gallons).

where S is the percent by weight of sulfur in the fuel oil.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

3. Testing Requirements:

a) The permitee shall conduct one stack test for particulate matter emissions within the term of the permit.

b) When the unit is in operation, the permittee shall read, weather permitting, the opacity of emissions using U.S. EPA Reference Method 9 once per daylight shift.

4. Specific Monitoring Requirements:

a) In accordance with Regulation 401 KAR 61:015, Section 6 (2), the sulfur content of liquid fuels, as burned, shall be determined based on certification from the fuel supplier. This certification shall include the name of the oil supplier and a statement that the oil complies with the specifications under the definition for distillate oil in Regulation 401 KAR 60:043.

b) In accordance with Regulation 401 KAR 61:015, Section 6 (3), the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

5. Specific Record Keeping Requirements:

a) Pursuant to Regulation 401 KAR 61:015, Section 6, the owner or operator of the indirect heat exchanger shall maintain a file of all measurements and data required, except that the records shall be maintained for five years.

b) The permittee shall maintain the results of all compliance tests.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

None

8. State-Origin Requirements:

a) Operating Limitations:

None

b) Emission Limitations:

None

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

9. Alternate Operating Scenarios:

None

10. Compliance Schedule

None

11. Compliance Certification Requirements

See Section F.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 03 Indirect Heat Exchanger

Description:
Boiler # 3 for Unit #2
No.2 fuel-oil horizontally-opposed fired.
Maximum continuous rating: 463.7 MMBTU/hour
Construction commenced: 1968

Applicable Regulations:

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable for an emissions unit more than 250 MMBTU/hour and commenced before August 17, 1971. Regulation No. 7, Prevention and control of emissions of particulate matter from combustion of fuel in indirect-heat-exchangers.

1. **Operating Limitations:**
None

2. **Emission Limitations:**

a) Pursuant to Regulation 401 KAR 61:015, Section 4(4), and Regulation No. 7, particulate emissions shall not exceed 0.22 lb/MMBTU based upon a three-hour average. Compliance with the allowable particulate standard may be demonstrated by calculating particulate emissions using fuel oil usage rates, fuel analysis, and emission factor information:

Emissions (lb/MMBTU) = (USEPA approved or AP-42 emission factor:2 lbs PM /10^3 gallons) / (Heating value from fuel analysis in MMBTU/10^3 gallons)

b) Pursuant to Regulation 401 KAR 61:015, Section 4(4), and Regulation No. 7, emissions shall not exceed forty percent opacity based on a six-minute-average except that a maximum of sixty (60) percent opacity is allowed for a period or aggregate of periods not more than six minutes in any sixty minutes during building a new fire, cleaning the fire-box, or blowing soot.

c) Pursuant to Regulation 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 1.2 lbs/MMBTU based on a twenty-four hour average. Compliance with the sulfur dioxide allowable standard may be demonstrated by calculating sulfur dioxide emissions using fuel usage rates, fuel analysis, and emission factor information:

Emissions (lb/MMBTU) = (USEPA approved or AP-42 emission factor: 142S lbs SO_2 / 10^3 gallons) / (Heating value from fuel analysis in MMBTU/10^3 gallons).

where S is the percent by weight of sulfur in the fuel oil.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

3. Testing Requirements:

a) The permitee shall conduct one stack test for particulate matter emissions within the term of the permit.

b) When the unit is in operation, the permittee shall read, weather permitting, the opacity of emissions using U.S. EPA Reference Method 9 once per daylight shift.

4. Specific Monitoring Requirements:

a) In accordance with Regulation 401 KAR 61:015, Section 6 (2), the sulfur content of liquid fuels, as burned, shall be determined based on certification from the fuel supplier. This certification shall include the name of the oil supplier and a statement that the oil complies with the specifications under the definition for distillate oil in Regulation 401 KAR 60:043.

b) In accordance with Regulation 401 KAR 61:015, Section 6 (3), the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

5. Specific Record Keeping Requirements:

a) Pursuant to Regulation 401 KAR 61:015, Section 6, the owner or operator of the indirect heat exchanger shall maintain a file of all measurements and data required, except that the records shall be maintained for five years.

b) The permittee shall maintain the results of all compliance tests.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

None

8. State-Origin Requirements:

a) Operating Limitations:

None

b) Emission Limitations:

None

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

9. Alternate Operating Scenarios:

None

10. Compliance Schedule

None

11. Compliance Certification Requirements

See Section F.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emission Unit 04 Indirect Heat Exchanger

Description:
Boiler #4 for Unit #2
No.2 fuel-oil horizontally-opposed fired.
Maximum continuous rating: 463.7 MMBTU/hour
Construction commenced: 1968

Applicable Regulations:

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable for an emissions unit more than 250 MMBTU/hour and commenced before August 17, 1971. Regulation No. 7, Prevention and control of emissions of particulate matter from combustion of fuel in indirect-heat-exchangers.

1. **Operating Limitations:**
None

2. **Emission Limitations:**

a) Pursuant to Regulation 401 KAR 61:015, Section 4(4), and Regulation No. 7, particulate emissions shall not exceed 0.22 lb/MMBTU based upon a three-hour average. Compliance with the allowable particulate standard may be demonstrated by calculating particulate emissions using fuel oil usage rates, fuel analysis, and emission factor information:

Emissions (lb/MMBTU) = (USEPA approved or AP-42 emission factor:2 lbs PM / 10^3 gallons) / (Heating value from fuel analysis in MMBTU/10^3 gallons)

b) Pursuant to Regulation 401 KAR 61:015, Section 4(4), and Regulation No. 7, emissions shall not exceed forty percent opacity based on a six-minute-average except that a maximum of sixty (60) percent opacity is allowed for a period or aggregate of periods not more than six minutes in any sixty minutes during building a new fire, cleaning the fire-box, or blowing soot.

c) Pursuant to Regulation 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 1.2 lbs/MMBTU based on a twenty-four hour average. Compliance with the sulfur dioxide allowable standard may be demonstrated by calculating sulfur dioxide emissions using fuel usage rates, fuel analysis, and emission factor information:

Emissions (lb/MMBTU) = (USEPA approved or AP-42 emission factor: 142S lbs SO_2 / 10^3 gallons) / (Heating value from fuel analysis in MMBTU/10^3 gallons).

where S is the percent by weight of sulfur in the fuel oil.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

3. Testing Requirements:

a) The permitee shall conduct one stack test for particulate matter emissions within the term of the permit.

b) When the unit is in operation, the permittee shall read, weather permitting, the opacity of emissions using U.S. EPA Reference Method 9 once per daylight shift.

4. Specific Monitoring Requirements:

a) In accordance with Regulation 401 KAR 61:015, Section 6 (2), the sulfur content of liquid fuels, as burned, shall be determined based on certification from the fuel supplier. This certification shall include the name of the oil supplier and a statement that the oil complies with the specifications under the definition for distillate oil in Regulation 401 KAR 60:043.

b) In accordance with Regulation 401 KAR 61:015, Section 6 (3), the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

5. Specific Record Keeping Requirements:

a) Pursuant to Regulation 401 KAR 61:015, Section 6, the owner or operator of the indirect heat exchanger shall maintain a file of all measurements and data required, except that the records shall be maintained for five years.

b) The permittee shall maintain the results of all compliance tests.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

None

8. State-Origin Requirements:

a) Operating Limitations:

None

b) Emission Limitations:

None

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

9. Alternate Operating Scenarios:

None

10. Compliance Schedule

None

11. Compliance Certification Requirements

See Section F.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 05 Indirect Heat Exchanger

Description:
Boiler for Unit # 3
Dry-bottom, pulverized-coal, wall-fired unit equipped with an electrostatic precipitator.
No.2 fuel-oil is used for startups and flame stabilization.
Maximum continuous rating: 976 MMBTU/hour
Construction commenced: 1953

Applicable Regulations:

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable for an emission unit more than 250 MMBTU/hour and commenced before August 17, 1971. Regulation No. 7, Prevention and control of emissions of particulate matter from combustion of fuel in indirect heat exchangers.

1. Operating Limitations:
None

2. Emission Limitations:

a) Pursuant to Regulation 401 KAR 61:015, Section 4(4), particulate emissions shall not exceed 0.22 lb/MMBTU based upon a three-hour average.

The permittee may assure continuing compliance with the particulate emission standard by operating the affected facility and associated control equipment such that the opacity does not exceed the upper limit of the indicator range developed from COM data collected during stack tests. If five (5) percent of COM data (based on a three hour rolling average) recorded in a calendar quarter show excursions from the indicator range, the permittee shall contact the Division within thirty (30) days after the end of the quarter to schedule a stack test to demonstrate compliance with the particulate standard while operating at the conditions which resulted in the excursions. The Division may waive this testing requirement upon a demonstration that the cause of the excursions has been corrected , or may require stack tests at any time pursuant to Regulation 401 KAR 50:045, Performance tests.

b) Pursuant to Regulation 401 KAR 61:015, Section 4(4), and Regulation No. 7, emissions shall not exceed 40 percent opacity based on a six-minute average except that a maximum of 60 percent opacity is allowed for a period or aggregate of periods not more than six minutes in any sixty minutes during building a new fire, cleaning the firebox, or blowing shoot.

c) Pursuant to Regulation 401 KAR 61:015, Section 5(1), sulfur dioxide emissions shall not exceed 1.8 lbs/mmBTU based on a twenty-four-hour average.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

3. Testing Requirements:

a) The permittee shall conduct at least one performance test for particulate emissions within six months following the issuance of this permit. The upper limit of the indicator range shall be developed from the COM data collected during the stack tests.

b) If no additional stack tests are performed pursuant to Condition 2. a) above, the permittee shall conduct one performance test for particulate emissions within the third year of the term of this permit to demonstrate compliance with the allowable standard.

4. Specific Monitoring Requirements:

a) Pursuant to Regulation 401 KAR 61:015, Section 6 (6), monitoring of operations for sulfur dioxide emissions shall be conducted daily by representative fuel sampling and analysis of fuel or by the use of a continuous emission monitoring system (CEMS). Records of the fuel sampling, analysis, and sulfur content or the data from the CEMS shall be maintained for inspection upon request by any duly authorized representative of the Division for Air Quality. The CEMS utilized for measuring sulfur dioxide emissions shall comply with Regulation 401 KAR 61:005, Section 3, particularly Performance Specification 2, and the summary shall consist of hourly averages.

b) In accordance with Regulation 401 KAR 61:015, Section 6 (1), the sulfur content of solid fuels, as burned, shall be determined in accordance with methods specified by the Division.

c) In accordance with Regulation 401 KAR 61:015, Section 6 (3), the rate of each fuel burned shall be measured daily and recorded. The heating value and ash content of fuels shall be ascertained at least once per week and recorded. The average electrical output, and the minimum and maximum hourly generation rate shall be measured and recorded daily.

d) Pursuant to Regulation 401 KAR 61:005, Section 3, a COMS for measuring opacity of visible emissions shall conform to the requirements of this section which includes installing, calibrating, operating, maintaining the COMS for accurate opacity measurements, and demonstrating compliance with Performance Specification 1 of Title 40 CFR Part 60, Appendix B, as requested by the Division.

e) Pursuant to Regulation 401 KAR 61:005, Section 3(5), the Division may provide a temporary exemption from the monitoring and reporting requirements of Regulation 401 KAR 61:005, Section 3, for the COMS during any period of monitoring system malfunction, provided that the source or operator shows to the Division's satisfaction that the malfunction was unavoidable and is being repaired as expeditiously as practicable.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

5. Specific Record Keeping Requirements:

a) Records shall be kept in accordance with Regulations 401 KAR 61:015, Section 3(16)(f) and 61:015, Section 6, with the exception that the records shall be maintained for a period of five (5) years.

b) The permittee shall maintain records of the COM data on a three-hour rolling average basis, the number of excursions above the indicator range, time and date of excursions, opacity value of the excursions, and percentage of the COM data showing excursions from the indicator range in each calendar quarter.

c) The permittee shall maintain the results of all compliance tests.

6. Specific Reporting Requirements:

a) Pursuant to Regulation 401 KAR 61:005, Section 3(16), minimum data requirements which follow shall be maintained and furnished in the format specified by the Division.

1. Owners or operators of facilities required to install continuous monitoring systems or those utilizing fuel sampling and analysis for sulfur dioxide emissions shall submit for every calendar quarter, a written report of excess emissions and the nature of the cause of the excess emissions if known. The averaging period used for data reporting should correspond to the emission standard averaging period which is a twenty-four (24) hour averaging period. All quarterly reports shall be postmarked by the thirtieth (30th) day following the end of each calendar quarter.

2. For opacity measurements, the summary shall consist of the magnitude in actual percent opacity of six (6) minute averages of opacity greater than the opacity standard in the applicable standard for each hour of operation of the facility. Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four (4) equally spaced, instantaneous opacity measurements per minute. Any time period exempted shall be considered before determining the excess average of opacity.

3. For gaseous measurements the summary shall consist of hourly averages in the units of the applicable standard.

4. The date and time identifying each period during which the continuous monitoring system was inoperative, except for zero and span checks, and the nature of system repairs or adjustments shall be reported. Proof of continuous monitoring system performance is required as specified by the Division whenever system repairs or adjustments have been made.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

5. When no excess emissions have occurred and the continuous monitoring systems(s) have not been inoperative, repaired, or adjusted, such information shall be included in the report.

b) The permittee shall report the number of excursions above the indicator range, date and time of excursions, opacity value of the excursions, and the percentage of the COM data showing excursions from the indicator range in each calendar quarter.

7. Specific Control Equipment Operating Conditions:

a) The electrostatic precipitator shall be operated as necessary to maintain compliance with the permitted emission limitations in accordance with the manufacture's specifications and/or standard operating practices.

b) Records regarding the maintenance and operation of the electrostatic precipitator shall be maintained.

c) See Section E for further requirements.

8. State-Origin Requirements:

a) Operating Limitations:

None

b) Emission Limitations:

None

9. Alternate Operating Scenarios:

None

10. Compliance Schedule

None

11. Compliance Certification Requirements

See Section F.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 06 Coal Conveying and Handling

Equipment includes: Coal receiving hopper, crusher, conveyors, stockpile, and haul roads controlled by enclosures and/or wet suppression.
Operating Rate: 240 tons/hour
Construction Commenced: 1953

Applicable Regulations:

Regulation 401 KAR 63:010, Fugitive emissions.

Applicable Requirements:

a) Pursuant to Regulation 401 KAR 63:010, Section 3, reasonable precautions shall be taken to prevent particulate matter from becoming airborne. Such reasonable precautions shall include, when applicable, but not be limited to the following:

(1) Application and maintenance of asphalt, water, or suitable chemicals on roads, material stockpiles, and other surfaces which can create airborne dusts;

(2) Installation and use of hoods, fans, and fabric filters to enclose and vent the handling of dusty materials, or the use of water sprays or other measures to suppress the dust emissions during handling;

b) Pursuant to Regulation 401 KAR 63:010, Section 3, discharge of visible fugitive dust emissions beyond the property line is prohibited.

1. Operating Limitation:

None

2. Emission Limitations:

None

3. Testing Requirements:

None

4. Specific Monitoring Requirements:

The permittee shall monitor the amount of coal received and processed.

5. Specific Record Keeping Requirements:

Records of coal received and processed shall be maintained.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

a) The enclosures and wet suppression control equipment used to control fugitive emissions shall be operated as necessary to maintain compliance with applicable requirements, in accordance with manufacturer's specifications and / or standard operating practices.

b) Records regarding the maintenance and operation of the control equipment shall be maintained.

c) See Section E for further requirements.

8. State-Origin Requirements:

a) Operating Limitations:

None

b) Emission Limitations:

None

9. Alternate Operating Scenarios:

None

10. Compliance Schedule

None

11. Compliance Certification Requirements

See Section F.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

Emissions Unit 07 Indirect Heat Exchanger

Description:
No. 2 fuel-oil tangentially fired auxiliary boiler.
Maximum Continuous Rating: 7 MMBTU/hour
Construction Commenced: 1964

Applicable Regulations:

Regulation 401 KAR 61:015, Existing indirect heat exchangers applicable for an emission unit less than 250 MMBTU/hr and commenced before April 9, 1972.

1. Operating Limitations:

None

2. Emission Limitations:

a) Pursuant to Regulation 401 KAR 61:015, Section 4 (1), particulate emissions shall not exceed 0.22 lb/MMBTU based on a three-hour average. Compliance with the allowable particulate standard may be demonstrated by calculating particulate emissions using fuel oil usage rates, fuel analysis, and emission factor information:

Emissions (lb/MMBTU) = (USEPA approved or AP-42 emission factor: 2 lbs PM / 10^3 gallons) / (Heating value from fuel analysis in MMBTU/10^3 gallons)

b) Pursuant to Regulation 401 KAR 61:015, Section 4(4), emissions shall not exceed 40 percent opacity based on a six-minute average.

c) Pursuant to Regulation 401 KAR 61:015, Section 5 (1), sulfur dioxide emissions shall not exceed 0.8 lb/MMBTU based on a twenty-four-hour average. Compliance with the sulfur dioxide allowable standard may be demonstrated by calculating sulfur dioxide emissions using fuel usage rates, fuel analysis, and emission factor information:

Emissions (lb/MMBTU) = (USEPA approved or AP-42 emission factor: 142S lbs SO_2 / 10^3 gallons) / (Heating value from fuel analysis in MMBTU/10^3 gallons).

where S is the percent by weight of sulfur in the fuel oil.

3. Testing Requirements:

The permittee shall determine the opacity of emissions from the stack by EPA Reference Method 9 annually, or more frequently if requested by the Division.

SECTION B EMISSION POINTS, EMISSIONS UNITS, APPLICABLE REGULATIONS, AND OPERATING CONDITIONS

4. Specific Monitoring Requirements:

a) In accordance with Regulation 401 KAR 61:015, Section 6(2), the sulfur content and heating value of liquid fuels, as burned shall be determined in accordance with methods specified by the Division.

b) The permittee shall perform a qualitative visual observation of the opacity of emissions from the stack on a weekly basis and maintain a log of the observations. If visible emissions from the stack are perceived or believed to exceed the applicable standard, the permittee shall determine the opacity of emissions by Reference Method 9 and instigate an inspection of the unit for any necessary repairs.

c) The permittee shall monitor the fuel-oil consumption rate on a annual basis.

5. Specific Record Keeping Requirements:

a) Records documenting the amount fuel oil consumption shall be maintained.

b) Records documenting the sulfur content and heating value of the fuel oil shall be maintained.

6. Specific Reporting Requirements:

See Section F.

7. Specific Control Equipment Operating Conditions:

See Section E.

8. State-Origin Requirements:

a) Operating Limitations:

None

b) Emission Limitations:

None

9. Alternate Operating Scenarios:

None

10. Compliance Schedule

None

11. Compliance Certification Requirements

See Section F.

SECTION C - INSIGNIFICANT ACTIVITIES

The following listed activities have been determined to be insignificant activities for this source pursuant to Regulation 401 KAR 50:035, Section 5(4). These activities are exempt from all permit requirements.

1. Used oil (from plant maintenance) burning.

2. Boiler cleaning solution evaporation.

3. Lubricating oil tanks.

4. Unleaded gasoline storage tanks (< 10,000 gallons constructed prior to 1974).

5. No. 2 fuel oil storage tanks (<415,000 gallons constructed prior to 1974).

6. Wet ash (bottom and flyash) handling system.

SECTION D - SOURCE EMISSION LIMITATIONS AND TESTING REQUIREMENTS

Particulate matter, sulfur dioxide, and visible (opacity) emissions, as measured by methods referenced in Regulation 401 KAR 50:015, Section 1, shall not exceed the respective limitations specified herein.

SECTION E - CONTROL EQUIPMENT CONDITIONS

Pursuant to Regulation 401 KAR 50:055, Section 2(5), at all times, including periods of startup, shutdown and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice as well as in accordance with manufacturer's specifications for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Division which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

1. When continuing compliance is demonstrated by periodic testing or instrumental monitoring, the permittee shall compile records of required monitoring information that include:
   a) Date, place as defined in this permit, and time of sampling or measurements.
   b) Analyses performance dates;
   c) Company or entity that performed analyses;
   d) Analytical techniques or methods used;
   e) Analyses results; and
   f) Operating conditions during time of sampling or measurement.

2. Records of all required monitoring data and support information, including calibrations, maintenance records, and original strip chart recordings, and copies of all reports required by the Division for Air Quality, shall be retained by the permittee for a period of five years and shall be made available for inspection upon request by any duly authorized representative of the Division for Air Quality.

3. The permittee shall allow the Division or authorized representatives to perform the following:
   a) Enter upon the premises where a source is located or emissions-related activity is conducted, or where records are kept;
   b) Have access to and copy, at reasonable times, any records required by the permit:
      i) During normal office hours, and
      ii) During periods of emergency when prompt access to records is essential to proper assessment by the Division;
   c) Inspect, at reasonable times, any facilities, equipment (including monitoring and pollution control equipment), practices, or operations required by the permit. Reasonable times shall include, but are not limited to the following:
      i) During all hours of operation at the source,
      ii) For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii) During an emergency; and
   d) Sample or monitor, at reasonable times, substances or parameters to assure compliance with the permit or any applicable requirements. Reasonable times shall include, but are not limited to the following:
      i) During all hours of operation at the source,
      ii) For all sources operated intermittently, during all hours of operation at the source and the hours between 8:00 a.m. and 4:30 p.m., Monday through Friday, excluding holidays, and
      iii) During an emergency.

4. No person shall obstruct, hamper, or interfere with any Division employee or authorized representative while in the process of carrying out official duties. Refusal of entry or access may constitute grounds for permit revocation and assessment of civil penalties.

SECTION F - MONITORING, RECORD KEEPING, AND REPORTING REQUIREMENTS

5. Reports of any monitoring required by this permit, other than continuous emission or opacity monitors, shall be submitted to the Division's Frankfort Regional Office no later than the six-month anniversary date of this permit and every six months thereafter during the life of this permit, unless otherwise stated in this permit. Data from the continuous emission and opacity monitors shall be reported to the Director in accordance with the requirements of Regulation 401 KAR 61:005, General provisions. All reports shall be certified by a responsible official pursuant to Section 6 (1) of Regulation 401 KAR 50:035, Permits. All deviations from permit requirements shall be clearly identified in the reports.

6. In accordance with Regulation 401 KAR 50:055, Section 1, the owner or operator shall notify the Division for Air Quality's Frankfort Regional Office by telephone as promptly as possible of any deviation from permit requirements, including those due to malfunctions, unplanned shutdowns, ensuing startups, or upset conditions, and report excess emissions. For this source, promptly will be defined as three (3) hours from the occurrence of the deviation. Pursuant to Regulation 401 KAR 50:035, Section 7(1)(e), the permittee shall submit a written notice describing the probable cause of the deviation and corrective actions or preventive measures taken within two (2) working days from the occurrence of the deviation when a technology-based emission limitation is exceeded.

7. The permittee shall certify compliance with the terms and conditions contained in this permit, annually on the permit issuance the anniversary date, to the Division for Air Quality's Frankfort Regional Office and the U.S. EPA in accordance with the following requirements:
    a) Identification of each term or condition of the permit that is the basis of the certification; and
    b) The compliance status regarding each term or condition of the permit; and
    c) Whether compliance was continuous or intermittent; and
    d) The method used for determining the compliance status for the source, currently and over the reporting period, pursuant to 401 KAR 50:035, Section 7(1) (c), (d), and (e); and
    e) Other facts the Division may require to determine the compliance status of the source; and
    f) This certification shall be postmarked by the 30th day following the applicable permit issuance anniversary date.

8. In accordance with Regulation 401 KAR 50:035, Section 23, the permittee shall report all information necessary to determine the subject emissions.

9. Pursuant to Section VII.3 of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1). Results of the performance test(s) shall be submitted to the Division by the source or its representative within forty-five (45) days after the completion of the field work.

SECTION G - GENERAL CONDITIONS

(a) General Compliance Requirements

1. The permittee shall comply with all conditions of this permit. Noncompliance shall be (a) violation(s) of State Regulation 401 KAR 50:035, Permits, Section 7 (3)(d) and for federally enforceable permits is also a violation of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) and are grounds for enforcement action including but not limited to the termination, revocation and reissuance, or revision of this permit.

2. The filing of a request by the permittee for any permit revision, revocation, reissuance, or termination, or of a notification of a planned change or anticipated noncompliance, shall not stay any permit condition.

3. This permit may be revised, revoked, reopened and reissued, or terminated for cause. The permit will be reopened for cause and revised accordingly under the following circumstances:
   i) If additional applicable requirements become applicable to the source and the remaining permit term is three (3) years or longer. In this case, the reopening shall be completed no later than eighteen (18) months after promulgation of the applicable requirement. A reopening shall not be required if compliance with the applicable requirement is not required until after the date on which the permit is due to expire, unless this permit or any of its terms and conditions have been extended pursuant to Regulation 401 KAR 50:035, Section 12(2)(c);
   ii) The Division or the U. S. EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the permit; or
   iii) The Division or the U. S. EPA determines that the permit must be revised or revoked to assure compliance with the applicable requirements.

   Proceedings to reopen and reissue a permit shall follow the same procedures as apply to initial permit issuance and shall affect only those parts of the permit for which cause to reopen exists. Reopenings shall be made as expeditiously as practicable. Reopenings shall not be initiated before a notice of intent to reopen is provided to the source by the Division, at least thirty (30) days in advance of the date the permit is to be reopened, except that the Division may provide a shorter time period in the case of an emergency.

4. The permittee shall furnish to the Division, in writing, information that the Division may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit, or to determine compliance with the permit.

5. Any condition or portion of this permit which becomes suspended or is ruled invalid as a result of any legal or other action shall not invalidate any other portion or condition of this permit.

6. Pursuant to Regulation 401 KAR 50:035, Section 7(3)(e), the permittee shall not use as a defense in an enforcement action the contention that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance.

SECTION G - GENERAL CONDITIONS

7. Except as identified as state-origin requirements in this permit, all terms and conditions contained herein shall be enforceable by the United States Environmental Protection Agency and citizens of the United States.

8. This permit shall be subject to suspension if the permittee fails to pay all emissions fees within 90 days after the date of notice as specified in Regulation 401 KAR 50:038, Section 3(6).

9. Nothing in this permit shall alter or affect the liability of the permittee for any violation of applicable requirements prior to or at the time of permit issuance.

10. This permit shall not convey property rights or exclusive privileges.

11. Issuance of this permit does not relieve the permittee from the responsibility of obtaining any other permits, licenses, or approvals required by the Kentucky Cabinet for Natural Resources, Department for Environmental Protection, or any other federal, state, or local agency.

12. Nothing in this permit shall alter or affect the authority of the U.S. EPA to obtain information pursuant to Federal Statute 42 USC 7414, Inspections, monitoring, and entry.

13. Nothing in this permit shall alter or affect the authority of the U.S. EPA to impose emergency orders pursuant to Federal Statute 42 USC 7603, Emergency orders.

14. Permit shield: Except as provided in Regulation 401 KAR 50:035, compliance by the emissions units listed herein with the conditions of this permit shall be deemed compliance with all identified applicable requirements as of the date of issuance of this permit.

15. The permittee may conduct test burns of materials other than those listed in the permit without a construction permit or a reopening of this permit provided that:
    a) Notification is provided to the Division at least 30 days prior to initiation of the test burning of the material;
    b) The source complies with all applicable regulations and emission limitations;
    c) The permittee agrees to perform such additional testing as may be required by the Division.

16. The permanent burning of any material (addressed in above condition) shall be allowed upon completion of testing provided that:
    a) The Division determines that a permit is not required. Such determination shall be made within sixty (60) days of the application receipt along with the test results;
    b) The permittee keeps records of date and time of burn;
    c) The permittee keeps records of analysis and feed rate of material;
    d) Burning any of those materials shall not be subject to any new applicable regulation and the source shall comply with all applicable regulation and emission limitations.

17. Fugitive emissions shall be controlled in accordance with Regulation 401 KAR 63:010.

SECTION G - GENERAL CONDITIONS

18. Emission limitations listed in this permit shall apply at all times except during periods of startup, shutdown, or malfunction in accordance with Regulation 401 KAR 50:055, as long as the permittee follows the requirements of Regulation 401 KAR 50:055.

19. Pursuant to Section VII 2.2.(1) of the policy manual of the Division for Air Quality as referenced by Regulation 401 KAR 50:016, Section 1(1), at least one month prior to the date of the required performance test, the permittee shall complete and return a Compliance Test Protocol (Form DEP 6027) to the Division's Frankfort Central Office. Pursuant to 401 KAR 50:045, Section 5, the Division shall be notified of the actual test date at least ten (10) days prior to the test.

(b) Permit Expiration and Reapplication Requirements

This permit shall remain in effect for a fixed term of five (5) years following the original date of issue. Permit expiration shall terminate the source's right to operate unless a timely and complete renewal application has been submitted to the Division at least six months prior to the expiration date of the permit. Upon a timely and complete submittal, the authorization to operate within the terms and conditions of this permit, including any permit shield. shall remain in effect beyond the expiration date, until the renewal permit is issued or denied by the Division.

(c) Permit Revisions

1. A minor permit revision procedure may be used for permit revisions involving the use of economic incentive, marketable permit, emissions trading, and other similar approaches, to the extent that these minor permit revision procedures are explicitly provided for in the Kentucky State Implementation Plan or in applicable requirements and meet the relevant requirements of Regulation 401 KAR 50:035, Section 15.

2. This permit is not transferable by the permittee. Future owners and operators shall obtain a new permit from the Division for Air Quality. The new permit may be processed as an administrative amendment if no other change in this permit is necessary, and provided that a written agreement containing a specific date for transfer of permit responsibility coverage and liability between the current and new permittee has been submitted to the permitting authority thirty (30) days in advance of the transfer.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(d) Emergency Provisions

1. An emergency shall constitute an affirmative defense to an action brought for noncompliance with the technology-based emission limitations if the permittee demonstrates through properly signed contemporaneous operating logs or other relevant evidence that:
   i) An emergency occurred and the permittee can identify the cause of the emergency;
   ii) The permitted facility was at the time being properly operated;
   iii) During an emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements in the permit; and,
   iv) The permittee notified the Division as promptly as possible and submitted written notice of the emergency to the Division within two working days after the time when emission limitations were exceeded due to the emergency. The notice shall meet the requirement of Regulation 401 KAR 50:035, Permits, Section 7(1)(e), and include a description of the emergency, steps taken to mitigate emissions, and the corrective actions taken. This requirement does not relieve the source of any other local, state or federal notification requirements.

2. Emergency conditions listed in General Condition (d)(1), above, are in addition to any emergency or upset provision(s) contained in an applicable requirement.

3. In an enforcement proceeding, the permittee seeking to establish the occurrence of an emergency shall have the burden of proof.

(e) Acid Rain Program Requirements

1. If an applicable requirement of Federal Statute 42 USC 7401 through 7671q (the Clean Air Act) is more stringent than an applicable requirement promulgated pursuant to Federal Statute 42 USC 7651 through 7651o (Title IV of the Act), both provisions shall apply, and both shall be state and federally enforceable.

2. The permittee shall comply with all requirements and conditions of the Title IV, Acid Rain Permit(s) issued for this source.

(f) Risk Management Provisions under CAA 112(r)

1. The permittee shall comply with all applicable requirements of 40 CFR Part 68, Risk Management Plan provisions. If required, the permittee shall:
   a) Submit a Risk Management Plan to the U.S.EPA, Region IV with a copy to this Division and comply with the Risk Management Program by June 21, 1999 or a later date specified by the U.S.EPA.
   b) Submit additional relevant information if requested by the Division or the U.S. EPA.

SECTION G - GENERAL CONDITIONS (CONTINUED)

(g) Ozone Depleting Substances

1. Permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR 82, Subpart F, except as provided for Motor Vehicle Air Conditioners (MVACs) in Subpart B:

   a. Persons opening appliances for maintenance, service, repair, or disposal shall comply with the required practices contained in 40 CFR 82.156.

   b. Equipment used during the maintenance, service, repair, or disposal of appliances shall comply with the standards for recycling and recovery equipment contained in 40 CFR 82.158.

   c. Persons performing maintenance, service, repair, or disposal of appliances shall be certified by an approved technician certification program pursuant to 40 CFR 82.161.

   d. Persons disposing of small appliances, MVAC(s), and MVAC-like appliances (as defined at 40 CFR 82.152) shall comply with the recordkeeping requirements pursuant to 40 CFR 82.166.

   e. Persons owning commercial or industrial process refrigeration equipment shall comply with the leak repair requirements pursuant to 40 CFR 82.156.

   f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant shall keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR 82.166.

2. If the permittee performs service on motor (fleet) vehicle air conditioners containing ozone-depleting substances, the source shall comply with all applicable requirements as specified in 40 CFR 82, Subpart B, Servicing of Motor Vehicle Air Conditioners.

SECTION H - ALTERNATE OPERATING SCENARIOS

None

SECTION I - COMPLIANCE SCHEDULE

None